

REMARKS

The Office Action dated September 19, 2007 has been carefully reviewed and the foregoing amendment has been made in consequence thereof.

Claims 1-36 and 38-44 are now pending in this application. Claims 1-44 stand rejected. Claim 37 has been canceled.

The rejection of Claims 1-12 and 28-32 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 6,668,279 to Curtis (hereinafter referred to as "Curtis") in view of U.S. Patent 7,130,701 to Wischinski (hereinafter referred to as "Wischinski") is respectfully traversed.

Curtis describes a system including an in-kernel data transport module (206). The system further includes multiple clients (100, 102) that may send HTTP requests to a web server (202). Within web server (202), an in-kernel cache (204) is managed by data transport module (206) having an associated protocol stack (208). Data transport module (206) routes HTTP requests or portions thereof to an HTTP daemon (210) via an upcall door (212). The system can be implemented on a computer system (1502) that has any number of processors (1504) coupled to primary storage devices (1504, 1506), a secondary storage device (1510), input/output devices (1512), and/or a telecommunications network (1514). Notably, Curtis does not describe or suggest a web and file transfer system that includes a web server, a file transfer server, and a database having at least one web page file.

Wischinski describes a technical support system (TSS) (11) that interrogates an industrial control system (ICS) and provides suggestions for upgrading components used by the ICS. The TSS (11) interrogates, either autonomously or at the direction of a technical support provider (17), control or automation devices (22 and 26) of the ICS. The TSS (11) and the control automation devices (22 and 26) communicate via the Internet using a separate server or a web server (21) embedded within the TSS (11). A third party web portal (15) allows access by the TSS (11) to a sales database (16), which stores sales information about the configuration of the ICS, and which is located remote to the TSS (11).

Claim 1 recites a web-enabled automation control module (ACM) that includes “an ACM central processing unit (CPU); and a web and file transfer system electrically connected to said ACM CPU, said system embedded within said ACM and configured to process hypertext transfer protocol (HTTP) requests from a network, said system comprising a web server, a file transfer server, and a database comprising at least one web page file; wherein said ACM is one of a programmable logic controller (PLC), a computer numeric control (CNC), and a motion control product.”

Neither Curtis nor Wischinski, considered alone or in combination, describes or suggests a web-enabled ACM, as recited in Claim 1. More specifically, neither Curtis nor Wischinski, considered alone or in combination, describes or suggests a web and file transfer system that includes a web server, a file transfer server, and a database having at least one web page file. Rather, Curtis describes a system including a web server that includes an in-kernel cache controlled by an in-kernel data transport module which routes HTTP requests or portions thereof to an HTTP daemon, and Wischinski describes a technical support system that provides technical support for an industrial control system over a network.

Applicants respectfully traverse the Examiner’s assertion at page 3 of the Office Action that Curtis describes a web and file transfer system “comprising a web server and a file transfer server (col. 2, lines 54-65, Curtis discloses a request and response HTTP data transport; col. 4, lines 39-48, Curtis discloses a web server receiving and processing HTTP requests; col. 10, lines 59-65, Curtis discloses the CPU being connected to input/output devices).” Applicants submit that Curtis does not describe or suggest a file transfer system as recited in the pending claims. In contrast, at column 10, lines 59-65, Curtis describes coupling a CPU to input/output devices such as video monitors, track balls, mice, keyboards, microphones, touch-sensitive displays, transducer card readers, magnetic or paper tape readers, tablets, styluses, voice or handwriting recognizers, or other input devices. Applicants submit that connecting such devices to a CPU does not describe either a web server or a file transfer server.

Moreover, Applicants traverse the Examiner’s assertion at page 4 of the Office Action that Curtis describes a web and file transfer system that “further comprises a database

electrically connected to said web server and comprising at least one web page file . . . (col. 1, lines 21-36, Curtis discloses a web server used to access a web page).” Applicants submit that Curtis does not describe or suggest a database as described in the pending claims. In contrast, at column 1, lines 21-36, Curtis describes how a user uses a web browser and a web server to access a web page on the Internet. However, Curtis does not describe the use of a database to store a web page file.

Accordingly, for at least the reasons set forth above, Claim 1 is submitted to be patentable over Curtis in view of Wischinski.

Claims 2-12 depend, directly or indirectly, from independent Claim 1. When the recitations of Claims 2-12 are considered in combination with the recitations of Claim 1, Applicants submit that dependent Claims 2-12 likewise are patentable over Curtis in view of Wischinski.

Claim 28 recites a method for management and control of an automation control module (ACM) including an ACM central processing unit (CPU), wherein the ACM is one of a programmable logic controller (PLC), a computer numeric control (CNC), and a motion control product. The method includes “embedding a web and file transfer system within the ACM including electrically connecting the web and file transfer system to the ACM CPU, the web and file transfer system includes a web server, a file transfer server, and a database configured to store at least one web page file; electrically connecting the web and file transfer system to a network; and processing hypertext transfer protocol (HTTP) requests from the network using the web and file transfer system.”

Neither Curtis nor Wischinski, considered alone or in combination, describes or suggests a method for management and control of an ACM, as recited in Claim 28. More specifically, neither Curtis nor Wischinski, considered alone or in combination, describes or suggests embedding a web and file transfer system within the ACM, wherein the web and file transfer system includes a web server, a file transfer server, and a database configured to store at least one web page file. Rather, Curtis describes a system including a web server that includes an in-kernel cache controlled by an in-kernel data transport module which routes

HTTP requests or portions thereof to an HTTP daemon, and Wischinski describes a technical support system that provides technical support for an industrial control system over a network.

Applicants respectfully traverse the Examiner's assertion at page 6 of the Office Action that Curtis describes embedding a web and file transfer system within an ACM, wherein the web and file transfer system "includes a web server and a file transfer server (col. 2, lines 54-65, col. 4, lines 39-48, col. 6, lines 1-10, col. 10, lines 59-65)...." Applicants submit that Curtis does not describe or suggest a file transfer system as recited in the pending claims. In contrast, at column 10, lines 59-65, Curtis describes coupling a CPU to input/output devices such as video monitors, track balls, mice, keyboards, microphones, touch-sensitive displays, transducer card readers, magnetic or paper tape readers, tablets, styluses, voice or handwriting recognizers, or other input devices. Applicants submit that connecting such devices to a CPU does not describe either a web server or a file transfer server.

Moreover, Applicants traverse the Examiner's assertion at pages 7 and 8 of the Office Action that Curtis describes a web and file transfer system that "further comprises a database electrically connected to the web server and including at least one web page file . . . (col. 1, lines 21-36, col. 2, lines 54-65, col. 4, lines 39-48, col. 6, lines 1-10)." Applicants submit that Curtis does not describe or suggest a database as described in the pending claims. In contrast, at column 1, lines 21-36, Curtis describes how a user uses a web browser and a web server to access a web page on the Internet. At column 2, lines 54-65, Curtis describes how data is transported within a web server between an HTTP daemon and a data transport module. At column 4, lines 39-48, Curtis describes an in-kernel data transport module that is managed by the system data transport module and communicates with the HTTP daemon. At column 6, lines 1-10, Curtis describes enabling efficient use of a system CPU by allowing the data transport module and the HTTP daemon to defer processing to each other while waiting for necessary resources. However, in none of the cited sections, nor elsewhere within the text, does Curtis describe the use of a database to store a web page file.

Accordingly, for at least the reasons set forth above, Claim 28 is submitted to be patentable over Curtis in view of Wischinski.

Claims 29-32 depend, directly or indirectly, from independent Claim 28. When the recitations of Claims 29-32 are considered in combination with the recitations of Claim 28, Applicants submit that dependent Claims 29-32 likewise are patentable over Curtis in view of Wischinski.

For at least the reasons set forth above, Applicants respectfully request that the Section 103 rejection of Claims 1-12 and 28-32 be withdrawn.

The rejection of Claims 13-27 and 33-44 under 35 U.S.C. § 103(a) as being unpatentable over Curtis in view of U.S. Patent 6,826,594 to Pettersen (hereinafter referred to as "Pettersen") and further in view of Wischinski is respectfully traversed.

Curtis and Wischinski are described above. Pettersen describes a method for inserting dynamic content into a web page. A web page owner defines one or more zones of a web page (793) as remotely managed, and then connects the web page (793) to a content serving web site (780) in order to manage the zones by identifying dynamic content to be inserted in the zones. By way of an affiliate browser (792), a user at an affiliated web site (790) accesses a zone content database (785) to alter a file (787) associated with a tag ID (786) owned by the affiliate. The affiliated web site (790) and the content serving web site (780) each have a web server (791 and 781). In response to a request from a user system browser (762), the content serving web site (780) looks up the file (787) associated with the dynamic content from the dynamic content database (785), using the tag ID (786) as a key, and sends the file (787) to a user system (760).

Claim 13 recites an automation control module (ACM) system that includes "an ACM comprising one of a programmable logic controller (PLC), a computer numeric control (CNC), and a motion control product; a network; a web-enabled computer electrically connected to said network; and a web and file transfer subsystem electrically connected to said ACM and said network, said web and file transfer subsystem comprising a web server, a

file transfer server, and a database, said subsystem configured to store at least one user-defined web page file in said database.”

None of Curtis, Pettersen, and Wischinski, considered alone or in combination, describes or suggests an ACM system, as recited in Claim 13. More specifically, none of Curtis, Pettersen, and Wischinski, considered alone or in combination, describes or suggests a web and file transfer subsystem that includes a web server, a file transfer server, and a database, wherein the subsystem is configured to store at least one user-defined web page file in the database. Rather, Curtis describes a system including a web server that includes an in-kernel cache controlled by an in-kernel data transport module which routes HTTP requests or portions thereof to an HTTP daemon, Pettersen describes a method for inserting dynamic content into a web page, and Wischinski describes a technical support system that provides technical support for an industrial control system over a network.

Applicants respectfully traverse the Examiner’s assertion at pages 8 and 9 of the Office Action that Curtis describes a web and file transfer subsystem electrically connected to an ACM, wherein the web and file transfer subsystem “comprising a web server and a file transfer server (col. 2, lines 54-65, col. 4, lines 39-48, col. 6, lines 1-10, col. 10, lines 59-65).” Applicants submit that Curtis does not describe or suggest a file transfer system as recited in the pending claims. In contrast, at column 10, lines 59-65, Curtis describes coupling a CPU to input/output devices such as video monitors, track balls, mice, keyboards, microphones, touch-sensitive displays, transducer card readers, magnetic or paper tape readers, tablets, styluses, voice or handwriting recognizers, or other input devices. Applicants submit that connecting such devices to a CPU does not describe either of a web server or a file transfer server.

Moreover, Applicants traverse the Examiner’s assertion at page 10 of the Office Action that Curtis describes a web and file transfer subsystem that “further comprises a database electrically connected to said network and said file transfer server (col. 2, lines 54-65).” Applicants submit that Curtis does not describe or suggest a database as described in the pending claims. Rather, at column 2, lines 54-65, Curtis describes how data is

transported within a web server between an HTTP daemon and a data transport module. However, Curtis does not describe the use of a database to store a web page file.

Accordingly, for at least the reasons set forth above, Claim 13 is submitted to be patentable over Curtis in view of Pettersen and further in view of Wischinski.

Claims 14-27 depend, directly or indirectly, from independent Claim 13. When the recitations of Claims 14-27 are considered in combination with the recitations of Claim 13, Applicants submit that dependent Claims 14-27 likewise are patentable over Curtis in view of Pettersen and further in view of Wischinski.

Claim 28 recites a method for management and control of an automation control module (ACM) including an ACM central processing unit (CPU), wherein the ACM is one of a programmable logic controller (PLC), a computer numeric control (CNC), and a motion control product. The method includes “embedding a web and file transfer system within the ACM including electrically connecting the web and file transfer system to the ACM CPU, the web and file transfer system includes a web server, a file transfer server, and a database configured to store at least one web page file; electrically connecting the web and file transfer system to a network; and processing hypertext transfer protocol (HTTP) requests from the network using the web and file transfer system.”

None of Curtis, Pettersen, and Wischinski, considered alone or in combination, describes or suggests a method for management and control of an ACM, as recited in Claim 28. More specifically, none of Curtis, Pettersen, and Wischinski, considered alone or in combination, describes or suggests embedding a web and file transfer system within the ACM, the web and file transfer system includes a web server, a file transfer server, and a database configured to store at least one web page file. Rather, Curtis describes a system including a web server that includes an in-kernel cache controlled by an in-kernel data transport module which routes HTTP requests or portions thereof to an HTTP daemon, Pettersen describes a method for inserting dynamic content into a web page, and Wischinski describes a technical support system that provides technical support for an industrial control system over a network.

Accordingly, for at least the reasons set forth above, Claim 28 is submitted to be patentable over Curtis in view of Pettersen and further in view of Wischinski.

Claims 33-35 depend, directly or indirectly, from independent Claim 28. When the recitations of Claims 33-35 are considered in combination with the recitations of Claim 28, Applicants submit that dependent Claims 33-35 likewise are patentable over Curtis in view of Pettersen and further in view of Wischinski.

Claim 36 recites a method for management and control of an automation control module (ACM) using an ACM system, the ACM system including an ACM, a network, and a web-enabled computer electrically connected to the ACM, wherein the ACM is one of a programmable logic controller (PLC), a computer numeric control (CNC), and a motion control product. The method includes “embedding a web and file transfer subsystem within the ACM including electrically connecting the web and file transfer subsystem to the ACM and the network, the web and file transfer subsystem includes a web server, a file transfer server, and a database; and storing at least one user-defined web page file in the database.”

None of Curtis, Pettersen, and Wischinski, considered alone or in combination, describes or suggests a method for management and control of an ACM, as recited in Claim 36. More specifically, none of Curtis, Pettersen, and Wischinski, considered alone or in combination, describes or suggests embedding a web and file transfer subsystem within the ACM, the web and file transfer subsystem including a web server, a file transfer server, and a database in which at least one user-defined web page file is stored. Rather, Curtis describes a system including a web server that includes an in-kernel cache controlled by an in-kernel data transport module which routes HTTP requests or portions thereof to an HTTP daemon, Pettersen describes a method for inserting dynamic content into a web page, and Wischinski describes a technical support system that provides technical support for an industrial control system over a network.

Applicants respectfully traverse the Examiner’s assertion at page 14 of the Office Action that Curtis describes embedding a web and file transfer system within an ACM, wherein the web and file transfer system “includes a web server and a file transfer server (col.

2, lines 54-65, col. 4, lines 39-48, col. 6, lines 1-10, col. 10, lines 59-65)....” Applicants submit that Curtis does not describe or suggest a file transfer system as recited in the pending claims. In contrast, at column 10, lines 59-65, Curtis describes coupling a CPU to input/output devices such as video monitors, track balls, mice, keyboards, microphones, touch-sensitive displays, transducer card readers, magnetic or paper tape readers, tablets, styluses, voice or handwriting recognizers, or other input devices. Applicants submit that connecting such devices to a CPU does not describe either a web server or a file transfer server.

Moreover, Applicants traverse the Examiner’s assertion at page 15 of the Office Action that Curtis describes a web and file transfer system that “further includes a database storing at least one user-defined web page file comprises storing the at least one user-defined web page file in the database (col. 10, lines 6-50).” Applicants submit that Curtis does not describe or suggest a database as described in the pending claims. In contrast, at column 1, lines 21-36, Curtis describes how a user uses a web browser and a web server to access a web page on the Internet. At column 2, lines 54-65, Curtis describes how data is transported within a web server between an HTTP daemon and a data transport module. At column 4, lines 39-48, Curtis describes an in-kernel data transport module that is managed by the system data transport module and communicates with the HTTP daemon. At column 6, lines 1-10, Curtis describes enabling efficient use of a system CPU by allowing the data transport module and the HTTP daemon to defer processing to each other while waiting for necessary resources. However, in none of the cited sections, nor elsewhere within the text, does Curtis describe the use of a database to store a web page file.

Accordingly, for at least the reasons set forth above, Claim 36 is submitted to be patentable over Curtis in view of Pettersen and further in view of Wischinski.

Claims 37-44 depend from independent Claim 36. When the recitations of Claims 37-44 are considered in combination with the recitations of Claim 36, Applicants submit that dependent Claims 37-44 likewise are patentable over Curtis in view of Pettersen and further in view of Wischinski.

For at least the reasons set forth above, Applicants respectfully request that the Section 103 rejection of Claims 13-27 and 33-44 be withdrawn.

In view of the foregoing amendment and remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Respectfully submitted,



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